Chat with Andrew Stein

Subject: Chat with Andrew Stein
From: Andrew Stein <steinlink@gmail.com>
To: barriticus@gmail.com

me: you familiar with Altera?
Andrew: the chipmaker?
me: yeah
Andrew: what abaout them?
me: someone was telling me about how they can provide chips for very cheap computers
me: for third world use
me: just wanted to see if you knew anything about it
me: he's giving me a long explanation in our IRC
Andrew: hes wrong
Andrew: short answer - that is what these srots of chips do, but they are unsuitable for personal computers
me: no, he's talking about a subset of their chips
me: reprogrammable chips
Andrew: they only make fpgas
Andrew: fpgas are for automation, embdedded electronics, etc
Andrew: altera makes some models that are suitable for prototyping cpus, but they are ridiculously expensive ($5k+) and the development time oyu would spend making software for them would be very large
Andrew: there is a reaosn all other low cost pc implementors go with off the shelf models like atom, snapdragon, arm, qualcomm
Andrew: fpgas are for research and low-power devices that would benefit from flash reprogrammability like automation devices
Andrew: http://en.wikipedia.org/wiki/Embedded_system
me: [19:17] <Waker> Let me introduce you to a corporation called Altera.
[19:18] <Waker> Big friends of mine in high places make FPGAdevelopment boards, okay.
[19:18] <Waker> They're fit for student and hobbyist use.
[19:18] <Waker> These boards can become whatever you damn want them to be.
[19:18] <Waker> You program them in a language called Verilog whichdescribes how the logic works internally and basically how the circuitswork.
[19:18] <Waker> tl;dr Reprogrammable chips.
[19:18] <@BarrettBrown> with you so far
[19:19] <Waker> Now, there's two options.
[19:19] <Waker> The standard development boards.
[19:19] <Waker> Altera DE1's, DE2's, and Stratix variants which offerlots of logic gates and up to 8MB of RAM.
[19:19] <Waker> Or further.

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[19:19] <Waker> Altera DE1's, DE2's, and Stratix variants which offerlots of logic gates and up to 8MB of RAM.
[19:19] <Waker> Or further.
[19:19] <Waker> If added to.
[19:20] <Waker> These can be used to make a System-on-a-chip design.
[19:20] <Waker> to be distributed in casings.
[19:20] <Waker> To the country.
[19:20] <Waker> With added expansion of the 40-pin headers on board,we can upgrade the boards to our liking and run other things on them.
[19:21] <Waker> These are manufactured by TerASIC.
[19:21] <Waker> Who can probably cut you a deal at $120.
[19:21] <Waker> Or less.
[19:21] <Waker> If you know who to go through.
[19:21] <@BarrettBrown> particularly if I can offer them a great deal ofpositive publicity in exchange, which I can
[19:21] <Waker> And next, for portable devices.
[19:21] <Waker> Yes.
[19:21] <Waker> For portable devices we have something that looks likea USB flash stick.
[19:22] <Waker> The BeMicro.
me: I'm checking out with my sysops
Andrew: http://www.buyaltera.com/scripts/partsearch.dll?Cat=2556262&PV-5=22897&PV-5=22898&PV-5=21079
Andrew: stratix price list
Andrew: note the $6k mean
Andrew: http://www.google.com/search?aq=f&sourceid=chrome&ie=UTF-8&q=google#hl=en&sugexp=ldymls&xhr=t&q=verilog+operating+system&cp=21&qe=dmVyaWxvZyBvcGVyYXRpbmcgc3lzJnesig=ks7jTs4Uf8qZFv5vFdDuqQ&pkc=AFgZ2tlOveVuux7DHOH2L9Dte1iGoz7lgMDcceAEU3kIfQ_jbapIieGKS4ek7D83JbZxxsPfX0NHPMBOvVdaYXyfKYIlt0_Yvg&pf=p&sclient=psy&aq=0v&aqi=&aql=&oq=verilog+operating+sys&pbx=1&fp=64053a76658fab7c
Andrew: google search for the existence of kernels cross compiled to verilog
Andrew: notice the 0 results
Andrew: this is a complete fantasy, this guy has no idea what he;s talking about
Andrew: I worked for Hearts doing embedded prototyping
Andrew: hearst
Andrew: again, this is not what these chips are for - altera seels cheap spgas and CPU grade fpgas, but they donts sell both and no one else does, and you lack the resources to develop a general purpose software stack for them anyway
Andrew: again, there's a reason the olpc, eee, etc - dont use these supposedly cheap magic chips
me: what's the reason?
Andrew: it is dramatically cheaper from both a hardware and software perspective to build systems on low-power off the shelf cpus like atom & arm over fpgas
Andrew: ask your buddy to show you a single example of an existing general purpose computer built on an altera product, or a link to a page that provides a general purpose unix environment on an fpga
Andrew: I will chop off my dick & mail it to him if he can
me: have you checked out the document yet?
Andrew: yeah
me: any thoughts?
Andrew: what do you want to know about it?
Andrew: they're notes about ways to distribute information
me: if the technical stuff thus far strikes you as reasonable
me: stuff about p2p, for instance
me: let me make sure I gave you the right one
me: yeah, this one
me: http://www.typewith.me/qdjqeFFu8O
me: you'll notice there are a lot of notes there
me: involving specific communications techniques
me: just wanted to see if anything there looks wrong
me: or if there are better solutions listed there
Andrew: yes, its very difficult to read in one large stream of conciousness paragraph
Andrew: there may be technicaly errors, its hard to tell
me: yeah, that will be taken care of
me: okay, I'll ask someone who can handle it
Andrew: its very vague and disorganized; I cant get a good idea of exactly what sot of system the i2p part, eg, is describing
me: okay, that's good right there
Andrew: so I cant reasonably say if there are holes or if its feasiable
me: okay
Andrew: certainly, these words exist and do things
me: after I get it into better shape I'll ask you again
Andrew: but this is completely useless as a technical document to another person capable of settings somethign up
Andrew: if thats the purpose
me: I know, these are just notes from various people
me: its function is to serve as partial raw material for a guide like the other two we put out
me: which I guess you haven't seen
Andrew: if you handed me this document and asked me to build something, i would be confused
Andrew: is that what you want to know?
me: no
me: this is just notes
me: from many people
me: within those notes, you'll find various assertions made
me: this one is a bit clearer: http://typewith.me/owA6rmGfP6
Andrew: this looks like basically the same document without the section I cited above as being unclear
me: it's partly the samew
me: you may notice that it includes some different into
me: nevermind, I got it covered
me: thanks anyway